US Army Corps
of Engineers
Alaska District

Public Notice of Application for Permit

Regulatory Branch (1145b)
3437 Airport Way
Suite 206
Fairbanks, Alaska 99709-4777

PUBLIC NOTICE DATE: April 16, 2004

EXPIRATION DATE: May 16, 2004

REFERENCE NUMBER: POA-1997-329-4

WATERWAY NUMBER: Tanana River

Interested parties are hereby notified that an application has been received for a Department of the Army permit for certain work in waters of the United States as described below and shown on the attached plan.

APPLICANT: Alaska Department of Natural Resources, Division of Parks, Design and Construction, 550 W. 7th Avenue, Suite 1340, Anchorage, Alaska 99501. Contact Person: Barbara Wild, 907-269-8745.

LOCATION: Big Delta State Historical Park, Big Delta, Alaska. Northwest ¼, Section 8, T. 9 S., R. 10 E. Latitude 64.1551°N, Longitude 145.8385°W.

WORK: The applicant proposes to discharge approximately 1900 cubic yards of clean quarry rock (riprap) along the bank and below ordinary high water of the Tanana River, a navigable waterway. The proposed project also includes the discharge of approximately 30 cubic yards of material into 200 square feet of wetlands. All work would be performed in accordance with the attached plans, pages 1-13, dated November 2003.

PURPOSE: The overall purpose of the project is to protect Rika's Roadhouse, part of the Big Delta State Historical Park, by preventing further erosion of the bank of the Tanana River. The proposed project involves the installation of four rock barbs in the Tanana River just upstream from the junction with the Big Delta River to improve bank stabilization and minimize bank erosion. A drainage structure will also be constructed to direct runoff from upland areas into the Tanana River while minimizing bank erosion.

ADDITIONAL INFORMATION: The proposed project consists of installing four rock barbs into the Tanana River, placing a drainage structure in the bank to reduce bank saturation, and re-establishing and maintaining riparian vegetation. The barbs would rise approximately 1.5 feet above the streambed, extending into the stream approximately 65 feet, and angling about 45 degrees upstream. The intent of the barbs is to reduce the potential for bank erosion by redirecting the stream flow away from the bank and reducing the velocity of flowing water against the bank. The drainage structure would be constructed with rock and a drainpipe to direct the flow of water off of the upland areas into the Tanana River. The outlet of the drain will be stabilized with vegetation. The vegetation re-establishment plan has been developed to address the disturbed sections of bank and enhance the

existing landscape and riparian buffer. The re-vegetation plan will include planting shrubs, trees and forbs and the use of live hardwood stakes and live hardwood fascines, as described on pages 7-13 of the attached plans.

Additionally, fall chum spawning grounds are found within the proposed project area.

WATER QUALITY CERTIFICATION: A permit for the described work will not be issued until a certification or waiver of certification as required under Section 401 of the Clean Water Act (Public Law 95-217), has been received from the Alaska Department of Environmental Conservation.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, reasons for holding a public hearing.

CULTURAL RESOURCES: The latest published version of the Alaska Heritage Resources Survey (AHRS) has been consulted for the presence or absence of historic properties, including those listed in or eligible for inclusion in the National Register of Historic Places. There is a registered or eligible property in the vicinity of the worksite. It has been designated the Big Delta Historic District. Because it has been determined to be within the project area, a determination of effect will be made in consultation with the State Historic Preservation Officer (SHPO). The United States Corps of Engineers (USCOE) submitted a report on the findings of an Archaeological Testing of the Big Delta Historic District to the Alaska Office of History and Archaeology in April 2001 (State of Alaska Field Archaeology Permit 2000-16). This report included recommendations regarding the mitigation or avoidance of effects on any known or discovered archeological artifacts or features during project implementation. Any comments SHPO may have concerning presently unknown archeological or historic data that may be lost or destroyed by work under the requested permit will be considered in our final assessment of the described work.

ENDANGERED SPECIES: No threatened or endangered species are known to use the project area.

Preliminarily, the described activity will not affect threatened or endangered species, or their critical habitat designated as endangered or threatened, under the Endangered Species Act of 1973 (87 Stat. 844). This application is being coordinated with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. Any comments they may have concerning endangered or threatened wildlife or plants or their critical habitat will be considered in our final assessment of the described work.

ESSENTIAL FISH HABITAT: The proposed work is being evaluated for possible effects to Essential Fish Habitat (EFH) pursuant to the Magnuson Stevens Fishery Conservation and Management Act of 1996 (MSFCMA), 16 U.S.C. et seq and associated federal regulations found at 50 CFR 600 Subpart K. The Alaska District includes areas of EFH as Fishery Management Plans. We have reviewed the January 20, 1999, North Pacific Fishery Management Council's Environmental Assessment to locate EFH area as identified by the National Marine Fisheries Service (NMFS).

We have determined that the described activity within the proposed area will not adversely affect EFH, including anadromous fish and federally managed fishery resources.

SPECIAL AREA DESIGNATION:

The project is located within the Big Delta Historic District.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the proposed activity and

its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome of the general balancing process. That decision should reflect the national concern for both protection and utilization of important resources. All factors, which may be relevant to the proposal, must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(1) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria (see Sections 320.2 and 320.3), a permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Comments on the described work, with the reference number, should reach this office no later than the expiration date of this Public Notice to become part of the record and be considered in the decision. Please contact Ellen Huber at the letterhead address, at (907) 474-2166, or by email at Ellen.M.Huber@poa02.usace.army.mil if further information is desired concerning this notice.

AUTHORITY: This permit will be issued or denied under the following authorities:

(X) Perform work in or affecting navigable waters of the United States - Section 10 Rivers and Harbors Act 1899 (33 U.S.C. 403).

(X) Discharge dredged or fill material into waters of the United States - Section 404 Clean Water Act (33 U.S.C. 1344). Therefore, our public interest review will consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

A plan and Notice of Application for State Water Quality Certification are attached to this Public Notice.

District Engineer
U.S. Army, Corps of Engineers

Attachments

FRANK H. MURKOWSKI, GOVERNOR

STATE OF ALASKA

OFFICE OF THE GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF WATER
Non-Point Source Water Pollution Control Program
401 Certification Program

NOTICE OF APPLICATION
FOR
STATE WATER QUALITY CERTIFICATION

Any applicant for a federal license or permit to conduct an activity that might result in a discharge into navigable waters, in accordance with Section 401 of the Clean Water Act of 1977 (PL95-217), also must apply for and obtain certification from the Alaska Department of Environmental Conservation that the discharge will comply with the Clean Water Act, the Alaska Water Quality Standards, and other applicable State laws. By agreement between the U.S. Army Corps of Engineers and the Department of Environmental Conservation, application for a Department of the Army permit to discharge dredged or fill material into navigable waters under Section 404 of the Clean Water Act also may serve as application for State Water Quality Certification.

Notice is hereby given that the application for a Department of the Army Permit described in the Corps of Engineers' Public Notice No. **POA-1997-329-4, Tanana River** serves as application for a short-term variance of State Water Quality Certification from the Department of Environmental Conservation, as provided in Section 401 of the Clean Water Act of 1977 (PL 95-217).

The Department will review the proposed activity to ensure that, except for an allowed, short-term variance, any discharge to waters of the United States resulting from the referenced project will comply with the Clean Water Act of 1977 (PL95-217), the Alaska Water Quality Standards, and other applicable State laws. The Department also may deny or waive certification.

Any person desiring to comment on the project with respect to Water Quality Certification may submit written comments within 30 days of the date of the Corps of Engineer's Public Notice to:

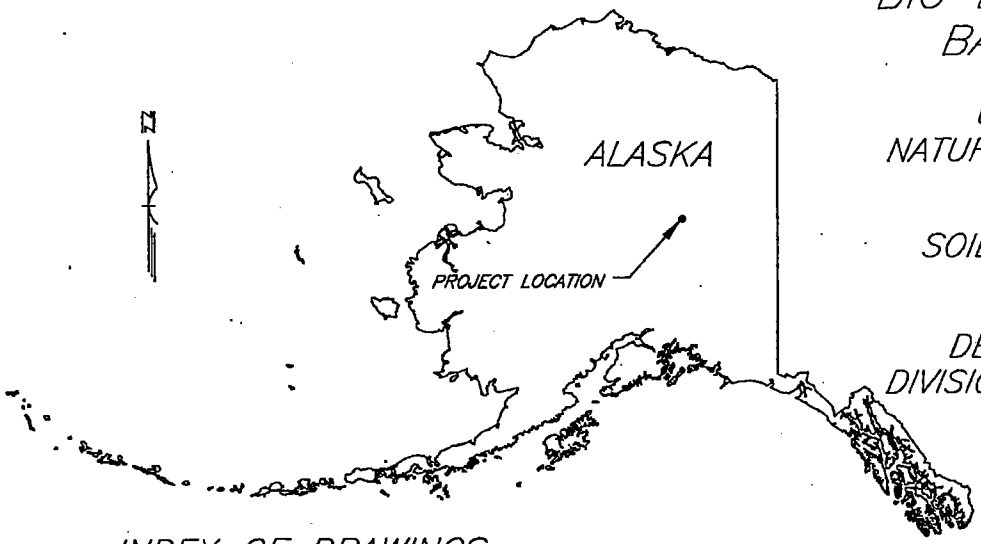
Department of Environmental Conservation
WQM/401 Certification
555 Cordova Street
Anchorage, Alaska 99501-2617
Telephone: (907) 269-7564
FAX: (907) 269-7508

BIG DELTA STATE HISTORICAL PARK
BANK STABILIZATION PROJECT

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

SALCHA – DELTA
SOIL AND WATER CONSERVATION DISTRICT

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF PARKS AND OUTDOOR RECREATION



INDEX OF DRAWINGS

GENERAL NOTES

1. Vertical control is based on the the elevation of the Nail, a 5" spike driven into a light pole about 5 feet upstream of the property corner marker (cap), about 1 foot above the ground level, elevation 991.90 as provided by the COE. Horizontal control is based on points "CAP" (N10,055.65,E9646.60) and "HUB4" (N10,000.00, E10,000.00).
2. Landowner/Sponsor is responsible for obtaining all required permits.
3. No representation is made as to the existence or nonexistence of any utilities, public or private. Absence of utilities on these drawings is not assurance that no utilities are present. If buried utilities are shown, the location and depth are approximate. The exact location and depth of any utility must be determined by the utility company prior to any excavation.
4. All stationing is measured by horizontal distance and refers to the baseline between HUB 1 and PT. C unless otherwise noted.

VICINITY MAP

SEC 8 T9S R10E F.M.
NOT TO SCALE

STATE OF ALASKA
49TH
Robert W. Sampson
CE 10732
REGISTERED PROFESSIONAL ENGINEER

Date 10/02
Designed RWS/AWR
Drawn AWR 10/02
Checked Stefanie ADC
Approved Robert W. Sampson 11/03
Title State Conservation Engineer

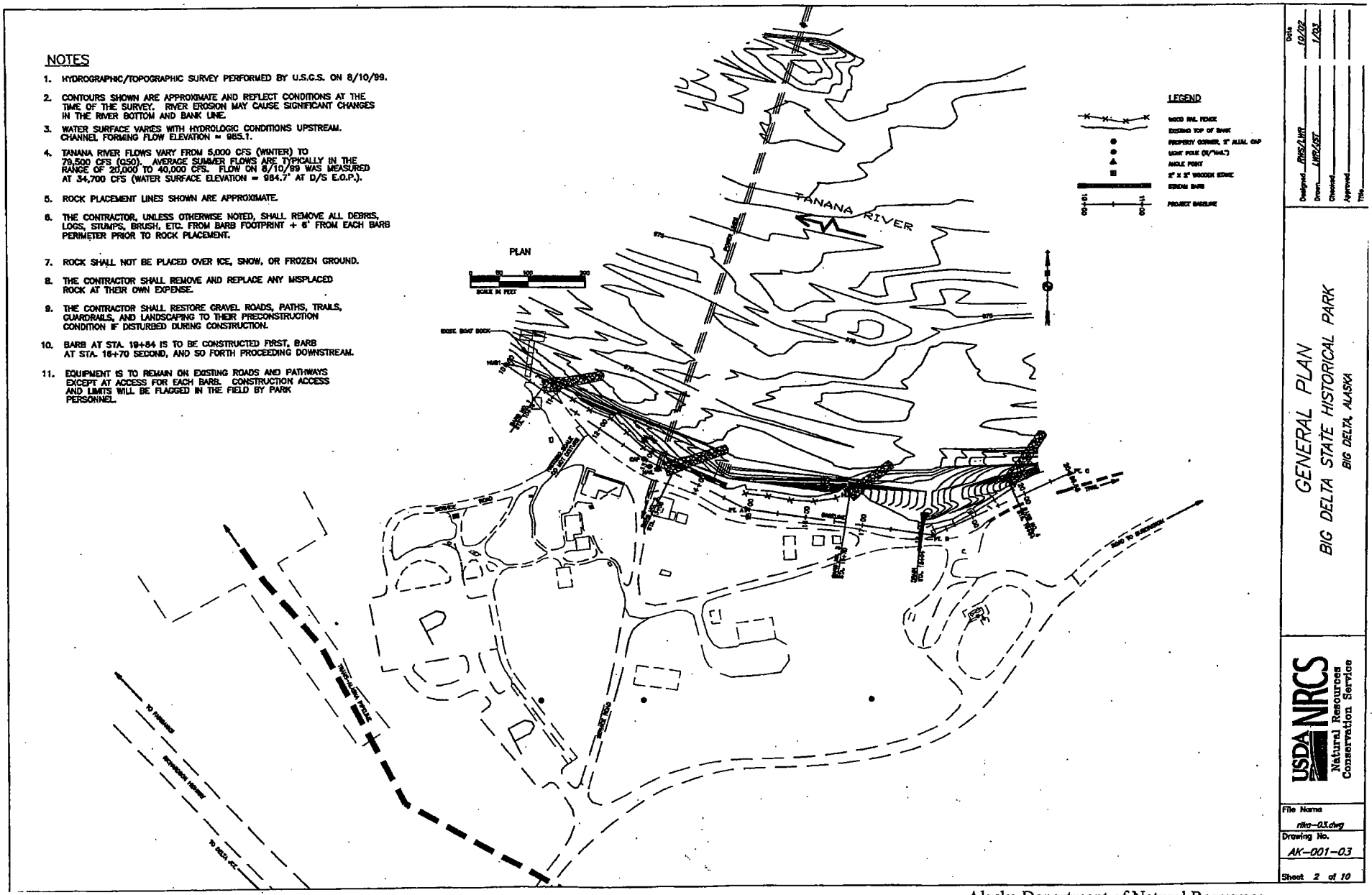
COVER SHEET
BIG DELTA STATE HISTORICAL PARK BANK STABILIZATION PROJECT
BIG DELTA, ALASKA

USDA NRCS Natural Resources Conservation Service

File Name rbko-01.dwg
Drawing No. AK-001-03
Sheet 1 of 10

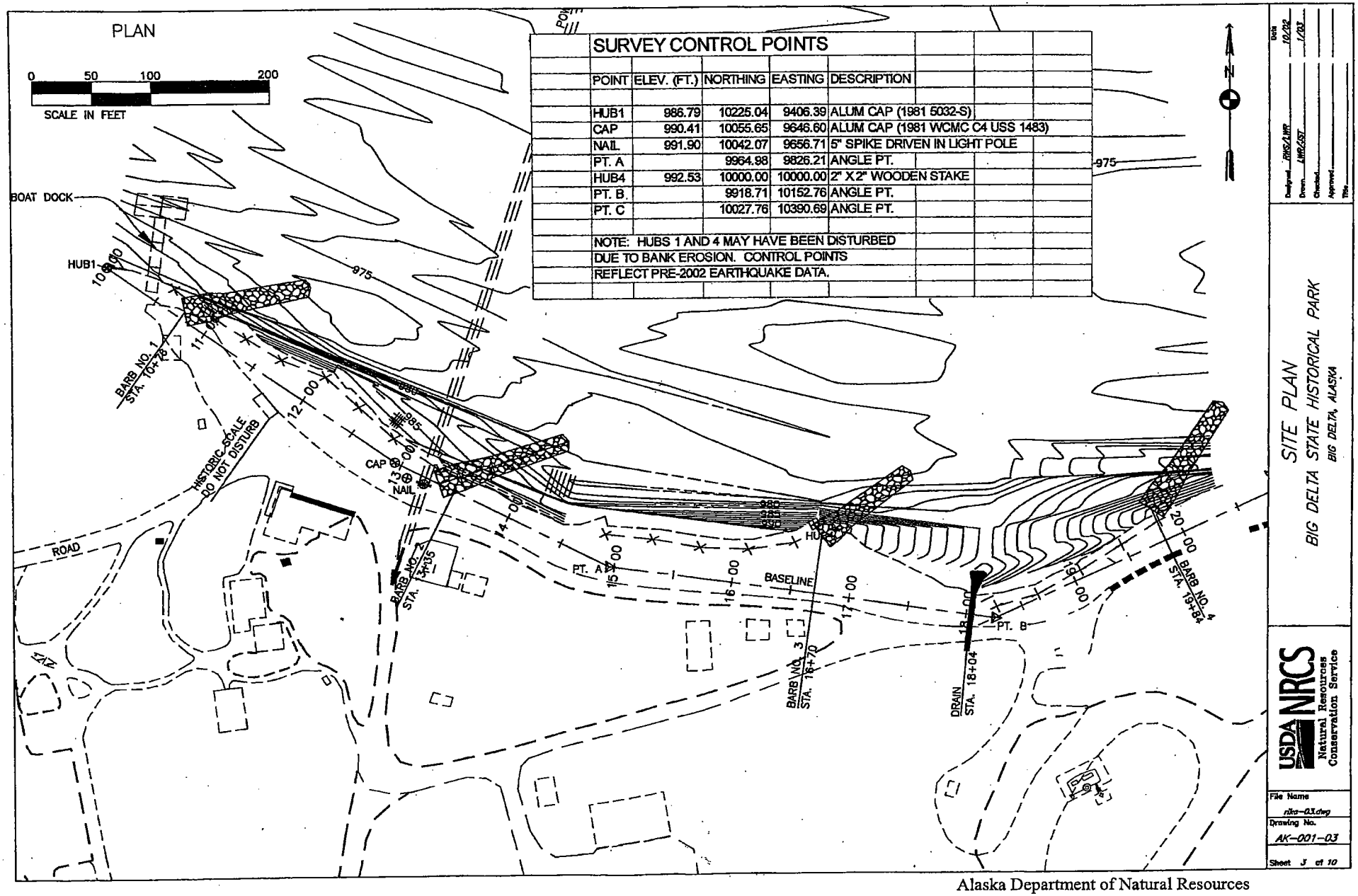
Alaska Department of Natural Resources
POA-1997-329-4, Tanana River
Plans approved: November 2003

Cover Sheet



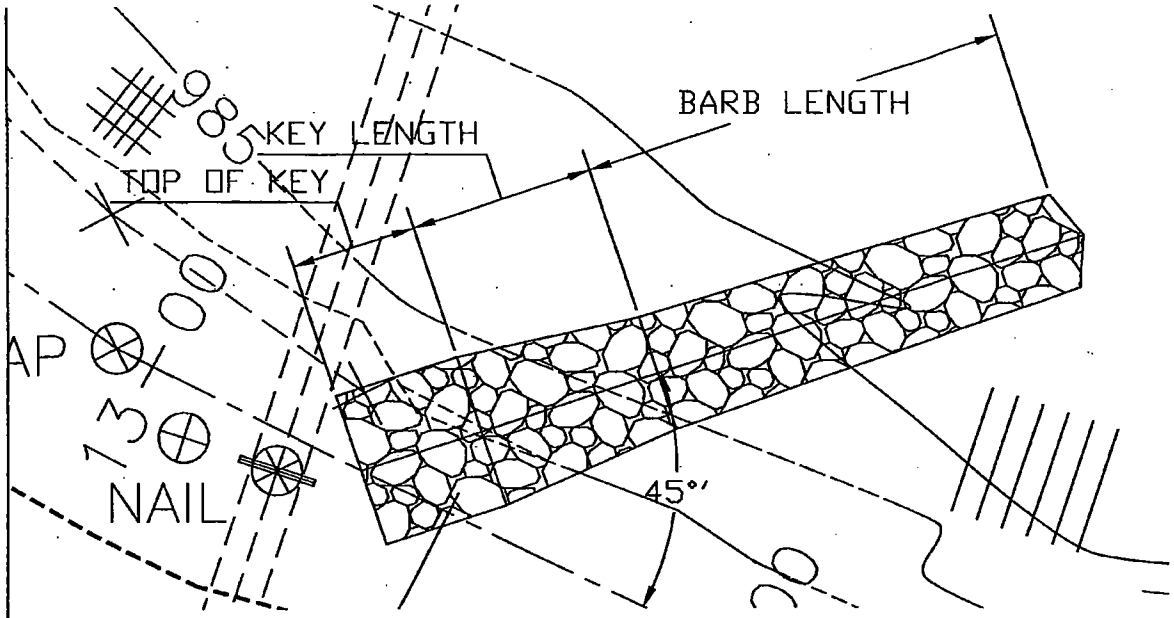
Alaska Department of Natural Resources
POA-1997-329-4, Tanana River
Plans approved: November 2003

General Plan

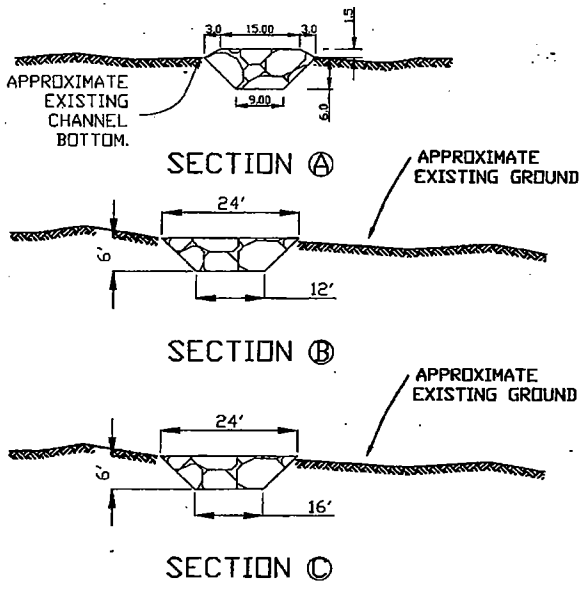


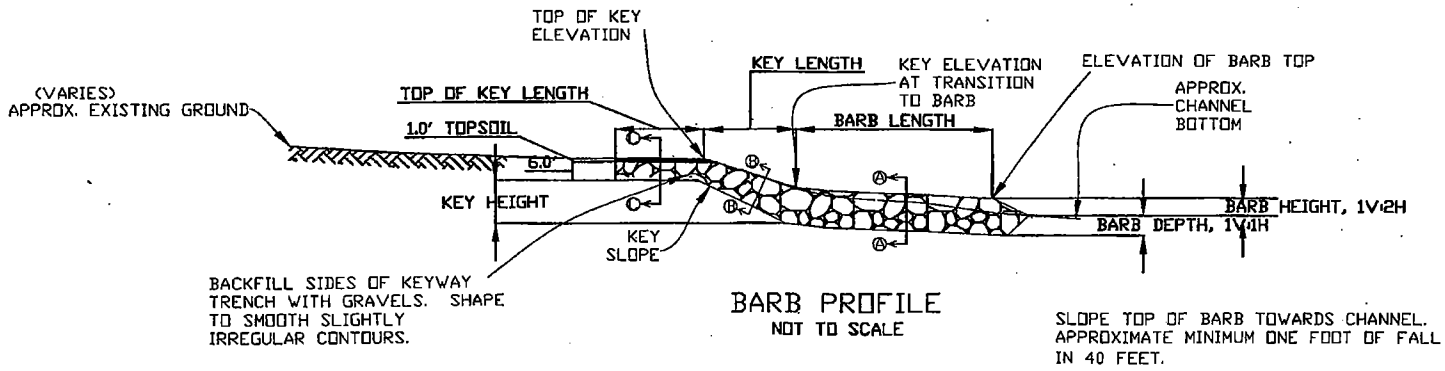
Alaska Department of Natural Resources
POA-1997-329-4, Tanana River
Plans approved: November 2003

Site Plan



BARB PLAN VIEW
NOT TO SCALE





BARB PROFILE
NOT TO SCALE

SLOPE TOP OF BARB TOWARDS CHANNEL. APPROXIMATE MINIMUM ONE FOOT OF FALL IN 40 FEET.

NOTE: SEE CHART ON SHEET 5 OF 10
FOR BARB DIMENSIONS AND ELEVATIONS.

BARB DETAILS
BIG DELTA STATE HISTORICAL PARK
BIG DELTA, ALASKA

USDA NRCS Natural Resources Conservation Service

File Name: nika-03v2.dwg
Drawing No.: AK-001-03
Sheet 4 of 10

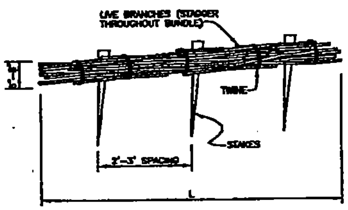
Alaska Department of Natural Resources
POA-1997-329-4, Tanana River
Plans approved: November 2003

Barb Details

BARB NO.	STATION	OFFSET DISTANCE	BARB LENGTH	BARB ANGLE	KEY LENGTH	BARB HEIGHT	BARB DEPTH	TOP OF BARB ELEV	BARB SLOPE	KEY HEIGHT	TOP OF KEY ELEV	TOP OF KEY LENGTH	KEY SLOPE	TRANSITION ELEV OF KEY
		feet	feet	degrees	feet	feet	feet	ELEV	ft/ft	feet	ELEV	FEET		
1	10+76	14.7	68	45°	12.7	1.5'	6.0'	975.4	0.025	6.6	983.7	23.42	1V:2H	977.4
2	13+35	12.3	65	45	28	1.5'	6.0'	978	0.025	11	989.1	19	1V:3H	979.6
3	16+70	48.4	65	45°	14.8	1.5'	6.0'	978.5	0.025	11.3	990	20.67	1V:1.5H	980.1
4	19+84	39'	65	32°	22	1.8'	6.0'	978.8	0.025	12.2	990.7	19.2	1V:2H	980.4

ROCK GRADATION FOR BARB

SIZE SMALLER (inches)	% PASSING DRY WT. BASIS
72	90 – 100
60	65 – 85
42	35 – 50
24	10 – 25
15	0 – 5

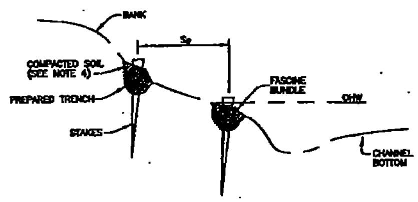


FASCINE BUNDLE DETAIL
NOT TO SCALE

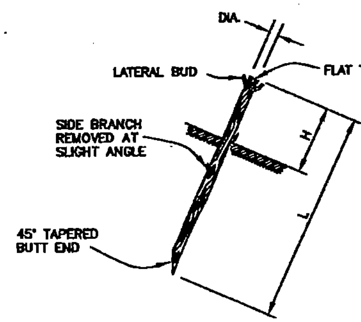
PLANT DIMENSIONS
Species Felt leaf willow/red osier dogwood
S_R (row spacing) = 3 (ft)
Number of rows = As marked in field

GENERAL NOTES

1. WOODY MATERIAL SHALL BE 1/2 TO 2" IN DIAMETER AND NOT LESS THAN 4' IN LENGTH (L).
2. FASCINE BUNDLES SHALL BE TIED WITH UNTREATED TWINE EVER 1 TO 2'.
3. THE PLANT MATERIAL SHOULD BE DORMANT, STRIPPED OF LEAVES, AND WATERED AT INSTALLATION.
4. PLACE AND FIRMLY COMPACT SOIL OVER AND AROUND FASCINE LEAVING APPROXIMATELY 30% OF UPPER BRANCHES EXPOSED. WORK SOIL INTO THE SPACES BETWEEN BRANCHES WITHIN FASCINE.
5. STAKES USED TO SECURE THE LIVE FASCINES SHOULD BE 2.5–3' LONG, UNTREATED, 2X4 LUMBER, SPLIT DIAGONALLY.



FASCINE CROSS SECTION
NOT TO SCALE



LIVE STAKE DETAIL
NOT TO SCALE

GENERAL NOTES FOR LIVE STAKES

ALL LATERAL BRANCHES SHALL BE TRIMMED TO AVOID DAMAGE.

A MINIMUM OF 2 LATERAL BUDS AND NO MORE THAN 4 SHALL BE ABOVE THE PLANTING DEPTH.

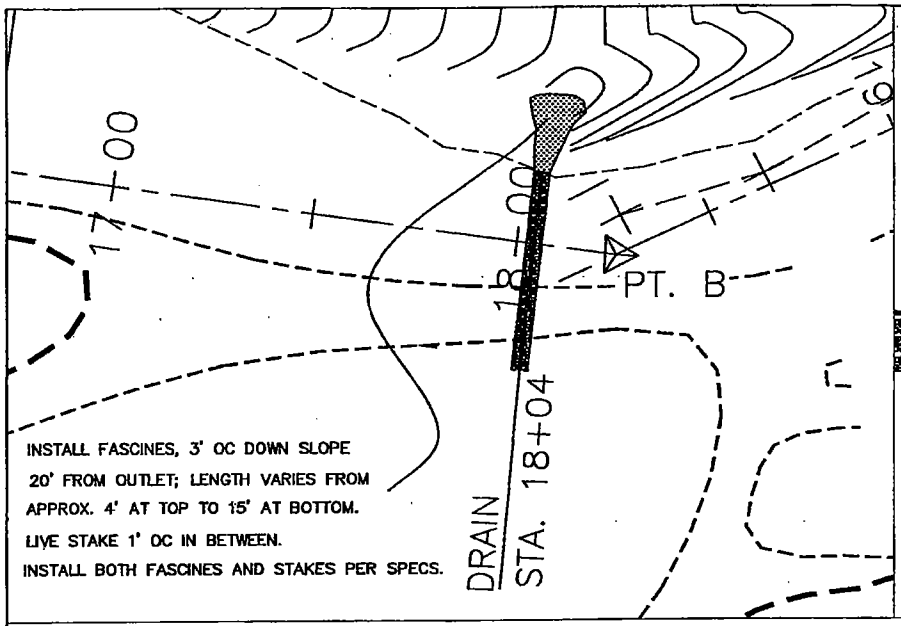
PLANT DIMENSIONS
Species Felt leaf willow
Dia. = 1 min (in) 2.5 max (in)
H = 2 min (in) 4 max (in)
L = 18 min (in) 30 max (in)
Number of rows = As marked in field

BARB DIMENSIONS AND REVEG DETAILS
BIG DELTA STATE HISTORIC PARK
BIG DELTA, ALASKA

USDA NRCS Natural Resources Conservation Service

File Name nko-05
Drawing No. AK-001-03
Sheet 5 of 10

	Date
Designed DRB/JRF	10/02
Drawn JRF	5/03
Checked	
Approved	
Title	

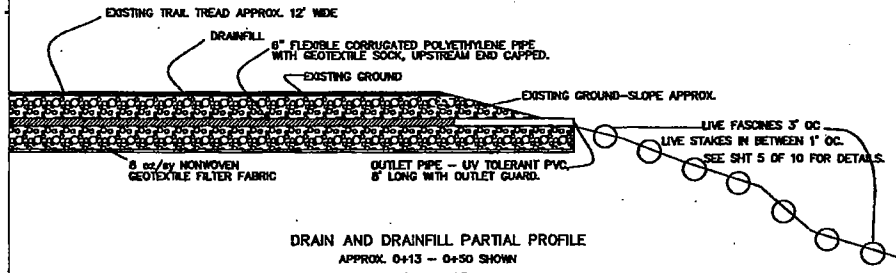


NOTES

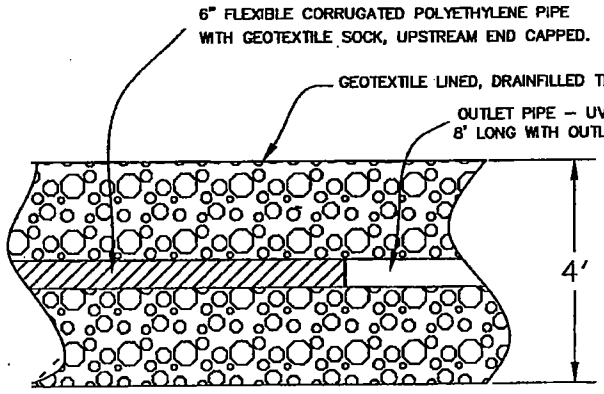
EXISTING TRAIL TREAD MATERIAL TO BE STOCKPILED AND REUSED TO SURFACE TRAIL 4" TO 6" THICK AFTER DRAIN AND DRAINFILL INSTALLATION.

BACKFILL TRENCH WITH 2" TO 4" POORLY GRADED DRAINFILL, LESS THAN 5% FINES.

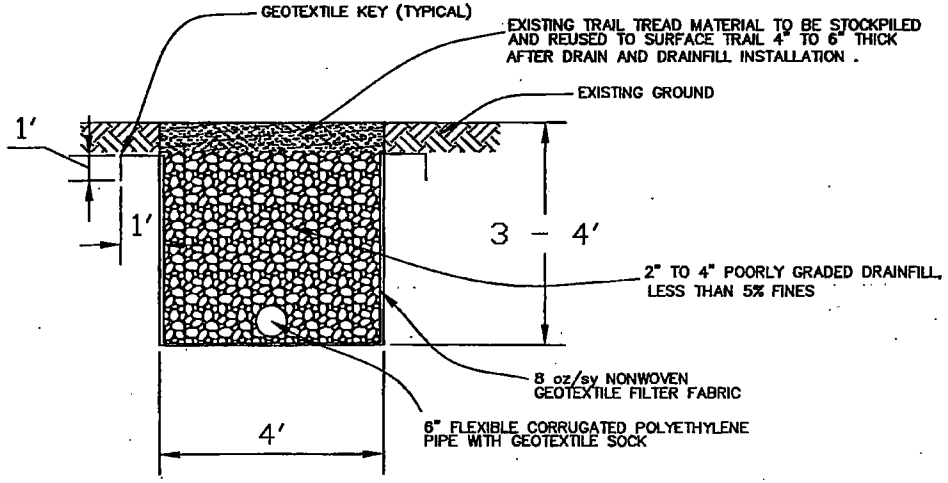
OUTLET GUARD – 1 GALVANIZED CARRIAGE BOLT PLACED HORIZONTALLY AT EXPOSED END OF SOLID OUTLET PIPE OR OTHER METHOD APPROVED BY NRCS DESIGNATED REPRESENTATIVE.



DRAIN AND DRAINFILL PARTIAL PROFILE
APPROX. 0+13 – 0+50 SHOWN
NOT TO SCALE
SLOPE MIN. 0.5% TOWARDS RIVER



DRAIN AND DRAINFILL PLAN VIEW
NOT TO SCALE



DRAIN AND DRAINFILL TYPICAL CROSS SECTION
NOT TO SCALE

Date 10/03
Designed AK
Drawn AK
Checked
Approved

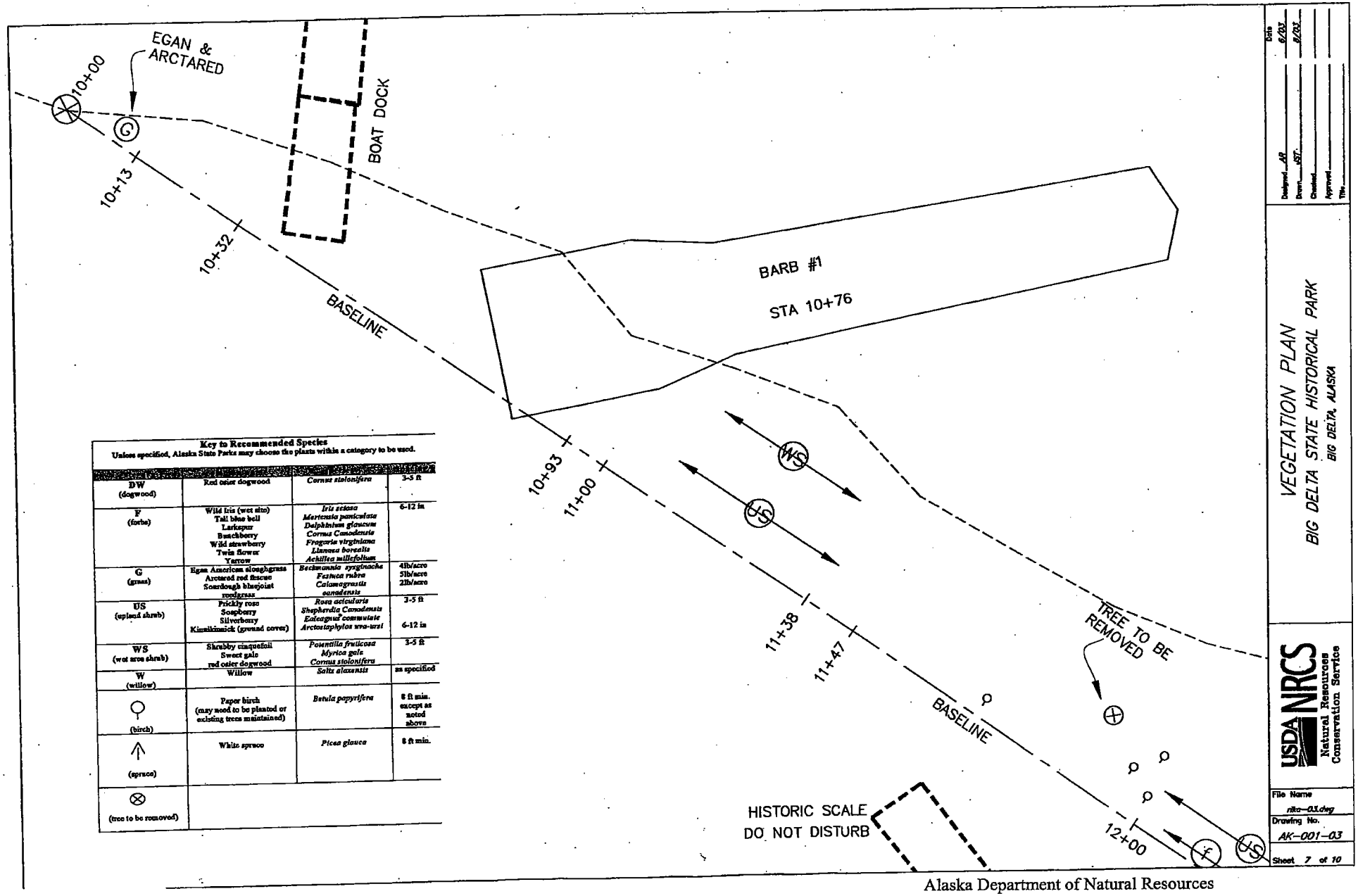
STA. 18+04 DRAIN DETAILS
BIG DELTA STATE HISTORICAL PARK
BIG DELTA, ALASKA

USDA NRCS Natural Resources Conservation Service

File Name bha-dtn
Drawing No. AK-001-03
Sheet 6 of 10

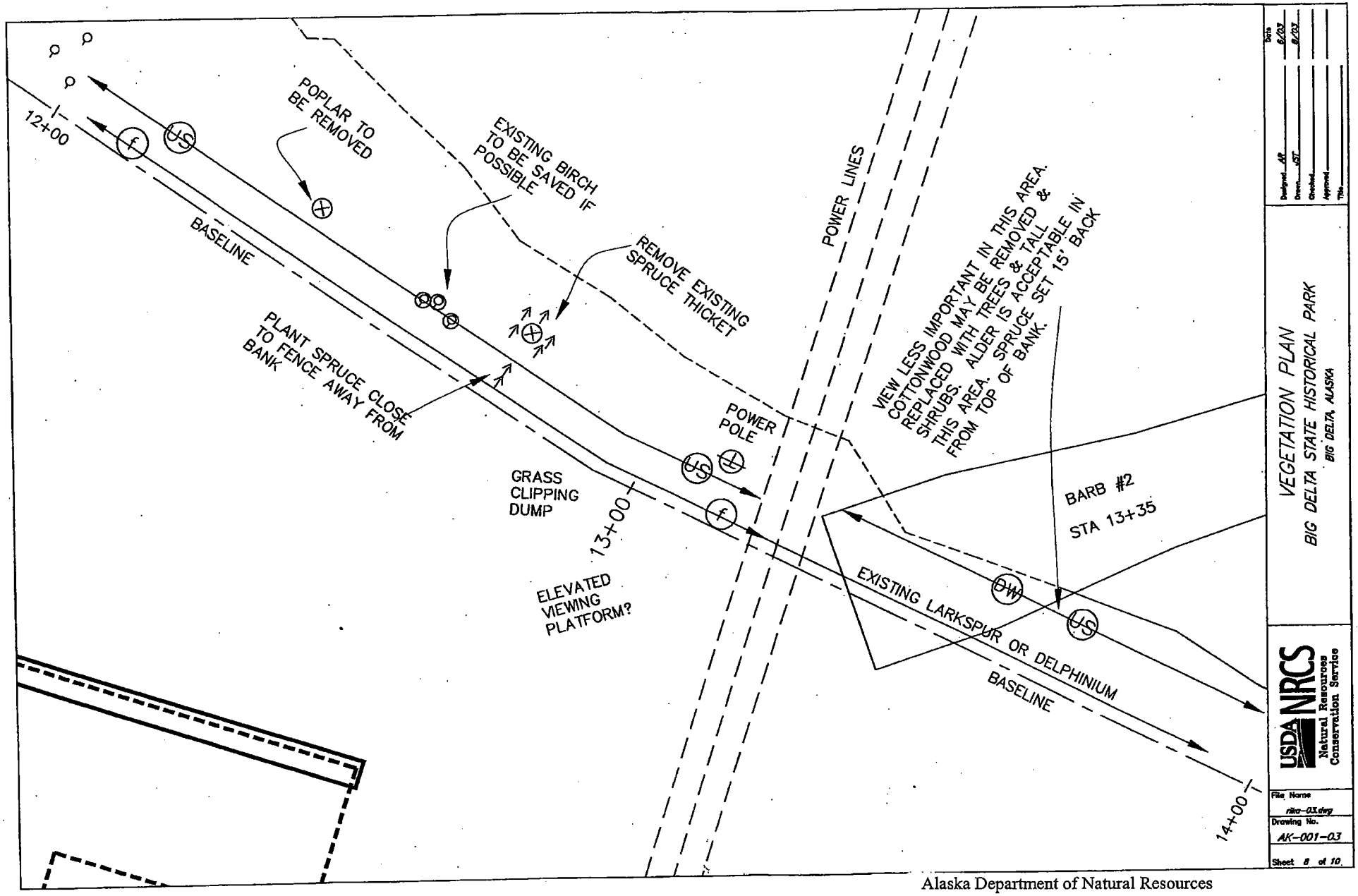
Alaska Department of Natural Resources
POA-1997-329-4, Tanana River
Plans approved: November 2003

Drain Details



Alaska Department of Natural Resources
POA-1997-329-4, Tanana River
Plans approved: November 2003

Vegetation Plan



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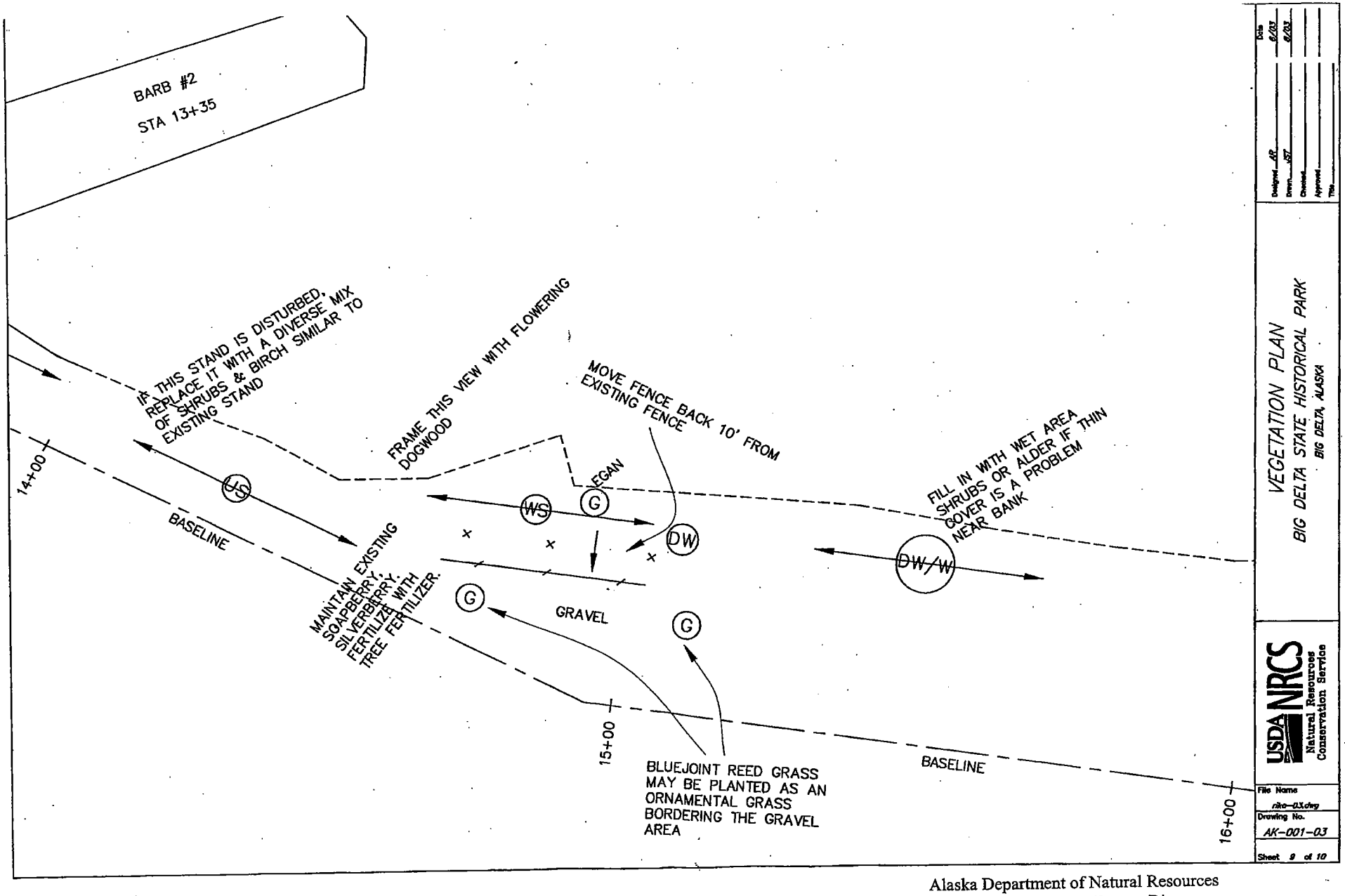
Vegetation Plan



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POA-1997-329-4, Tanana River
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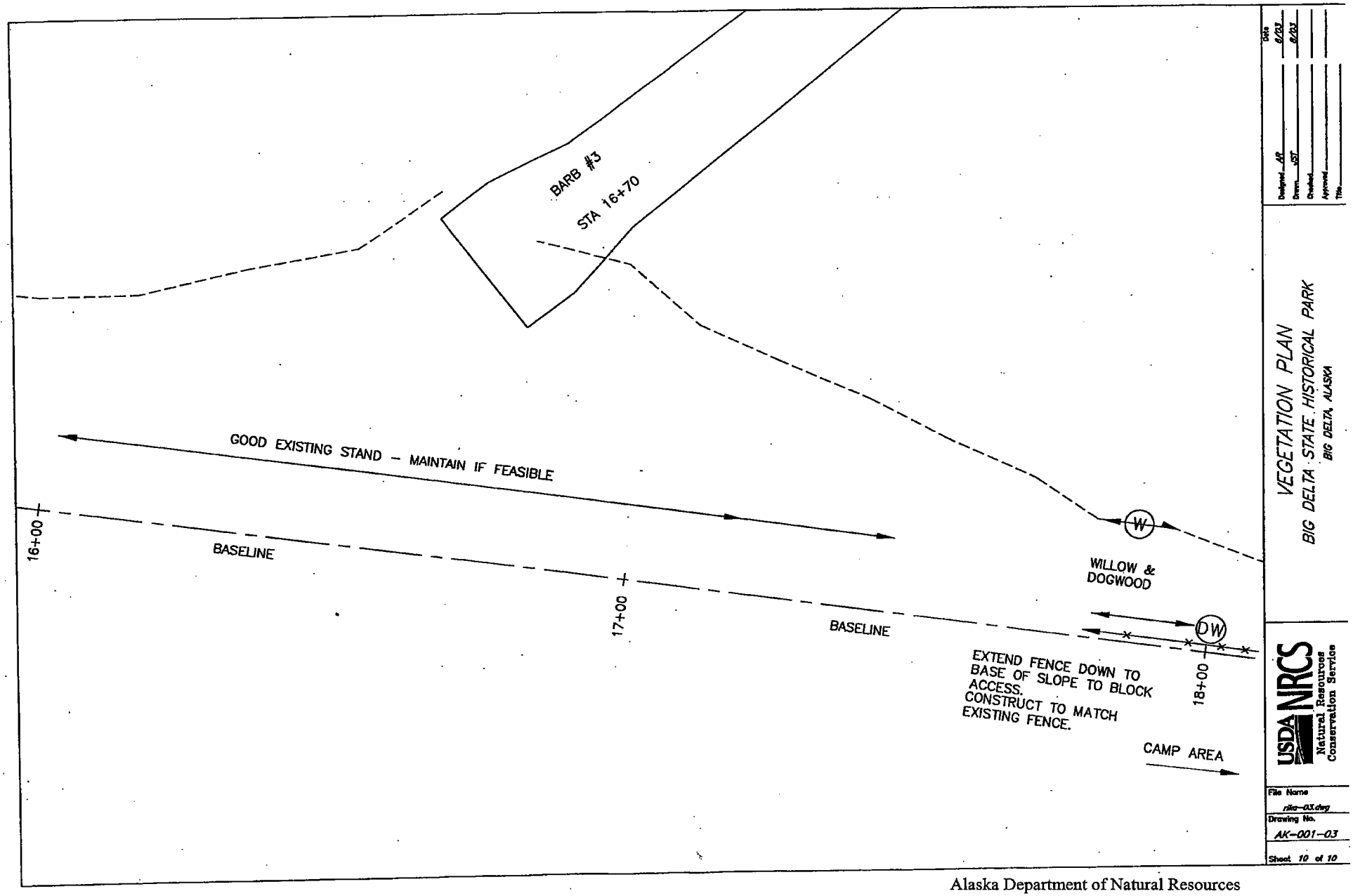
Vegetation Plan



Alaska Department of Natural Resources
POA-1997-329-4, Tanana River
Plans approved: November 2003

Vegetation Plan

Rika's Roadhouse Vegetation Re-establishment Plan

The existing landscape along the Tanana River of this state park is a blend of well established native plants. The site to be re-vegetated encompasses any disturbed sections of the area between the top of the bank and the path along the length of the project. No or limited re-vegetation is expected to be needed beyond 11+00. The natural landscape appears to have been enhanced with careful manipulation and planting of native species in a manner consistent with common practices when the roadhouse was in active use. The goal is to maintain the existing landscape where possible and re-establish a similar landscape on areas that are disturbed during construction of the bank stabilization structures. This vegetation provides a wildlife corridor along the river without diminishing esthetic and historical values.

Partial List of Existing Plants
Trees
• White spruce
• Paper birch
• Balsam poplar
Shrubs
• Willow sp
• Prickly rose
• Silverberry
• Soapberry
• Wild raspberry
• Alder
Forbs
• Tall blue bell
• Wild strawberry
• Larkspur
• Yarrow
• Fireweed
Grasses and grass like plants
• Many of the existing grasses are introduced species
• Horsetail

The face of the river bank is to be re-established with a dense stand of feltleaf willow (*Salix alaxensis*) as specified elsewhere in the design documentation. Red Osier Dogwood (*Cornus stolonifera*) may be mixed in periodically but will not exceed 5% of the stems on the face of the bank. A pure stand of salix is acceptable. Willow is the best choice to provide structural stability to the bank. It is tolerant of frequent flooding, will help dry soils, is inexpensive and quick to establish and provides a natural habitat for micro-invertebrates.

Poplar exists on the sight. It is short lived and may cause unstable conditions over time. Spruce can also disturbed the riverbank when undercutting or wind throw uproots a large tree. For these reasons, spruce and poplar should be at least 15 foot back from the top of bank. Spruce and birch should be planted with a minimum 8 foot spacing between trees. Birch may be planted in tight groups of 2 or 3 with groups spaced 15 feet from other trees. Poplar may be discouraged if they are not appealing in the landscape. If poplar is

cut the roots will tend to send up new shoots. Chemical control can be effective in preventing shoot development when poplars are cut. Chemicals can be directly applied to the fresh cut and translocated through the root system. Any use of chemical plant control will require a specific recommendation from the Cooperative Extension Service with review by NRCS, and may require permits. Contact NRCS for assistance.

Forbs may be planted within two feet of the pathway. Forbs are largely an esthetic choice but may provide food for birds and other wildlife. Expect forbs and groundcovers to spread into the understory.

Wet area shrubs should generally be planted closer to the river with upland shrubs toward the pathway. Existing vegetation may be used to indicate areas where wetland plants are better suited.

Irrigation

All transplants should be watered during planting. The plants should be water periodically during the establishment year by soaking the soil to a depth of 6 inches. The larger trees should be watered sufficiently to wet the soil to a depth of 12 inches. Allow soil to dry between watering. Care should be taken not to water too frequently or to over saturate the soil. Saturating the soil destabilizes the bank and could result in slumping

Key to Recommended Species

Unless specified, the park owner may choose the plants within a category to be used.

category	common name	species	spacing
DW (dogwood)	Red osier dogwood	*Cornus stolonifera*	3-5 ft
F (forbs)	Wild Iris (wet site) Tall blue bell Larkspur Bunchberry Wild strawberry Twin flower Yarrow	*Iris setosa* *Mertensia paniculata* *Delphinium glaucum* *Cornus Canadensis* *Fragaria virginiana* *Linnaea borealis* *Achillea millefolium*	6-12 in
G (grass)	Egan American sloughgrass Arctared red fescue Sourdough bluejoint reedgrass	*Beckmannia syzginache* *Festuca rubra* *Calamagrostis canadensis*	4lb/acre 5lb/acre 2lb/acre
US (upland shrub)	Prickly rose Soapberry Silverberry Kinnikinnick (ground cover)	*Rosa acicularis* *Shepherdia Canadensis* *Ealeagnus commutate* *Arctostaphylos uva-ursi*	3-5 ft 6-12 in
WS (wet area shrub)	Shrubby cinquefoil Sweet gale red osier dogwood	*Potentilla fruticosa* *Myrica gale* *Cornus stolonifera*	3-5 ft
W (willow)	Willow	*Salix alaxensis*	as specified
○ (birch)	Paper birch (may need to be planted or existing trees maintained)	*Betula papyrifera*	8 ft min. except as noted above
△ (spruce)	White spruce	*Picea glauca*	8 ft min.
⊗ (tree to be removed)			